

### **Amendments to the Claims**

Please amend claims 1-13 and add new claim 14 as shown in the following listing of claims. This listing of claims will replace all prior versions, and listings, of claims in the application.

- 1     1.     (currently amended) Demodulator arranged to demodulate a first signal  
2     with the aid of a second signal, the demodulator comprising:  
3             a first bandpass ~~(30)~~ filter arranged to recover the first signal ~~(36)~~  
4     from a received signal ~~(10)~~; and  
5             a second bandpass filter ~~(32)~~ arranged to recover the second signal  
6     ~~(36)~~ from a received signal ~~(10)~~;  
7             in which the passband of the second bandpass filter ~~(32)~~ is  
8     substantially narrower than the passband of the first bandpass filter ~~(30)~~.
  
- 1     2.     (currently amended) Demodulator according to claim 1, wherein the  
2     demodulator comprises compensation means ~~(40,50)~~ for compensating phase error  
3     between the recovered first ~~(36)~~ and second ~~(38)~~ signals.
  
- 1     3.     (currently amended) Demodulator according to claim 2, wherein the  
2     compensation means comprises a delay element ~~(4)~~ that is arranged to delay the  
3     recovered first signal ~~(36)~~.
  
- 1     4.     (currently amended) Demodulator according to claim 2, wherein the  
2     compensation means comprises a phase shifter ~~(50)~~ that is arranged to shift a  
3     phase of the recovered first signal ~~(36)~~, the phase shift being dependent upon the  
4     phase difference between the recovered second signal ~~(38)~~ and a reference signal  
5     ~~(51)~~.
  
- 1     5.     (currently amended) Demodulator according to claim 4, wherein the  
2     compensation means comprises a selector ~~(31)~~ that is arranged to select the  
3     reference signal ~~(51)~~ from at least two sources.

- 1 6. (currently amended) Demodulator according to claim 5, wherein the  
2 selector ~~(34)~~ is a programmable selector.
- 1 7. (currently amended) Demodulator according to claim 5, wherein one of the  
2 at least two sources is a demodulated first signal ~~(18)~~.
- 1 8. (currently amended) Demodulator according to claim 5, wherein one of the  
2 at least two source is an image of a demodulated first signal ~~(18)~~ which is stored  
3 in memory means ~~(35)~~.
- 1 9. (currently amended) Demodulator according to claim 8 wherein, the  
2 memory means ~~(35)~~ comprises an analogue to digital converter arranged to  
3 provide a digital image of the demodulated first signal.
- 1 10. (currently amended) Demodulator according to claim 1 wherein the  
2 demodulator further comprises a phase locked loop ~~(60)~~ for stabilizing the  
3 recovered second signal ~~(38)~~.
- 1 11. (currently amended) Demodulator according to claim 1 wherein the  
2 recovered second signal ~~(38)~~ is used for frequency down converting at least a third  
3 signal ~~(73)~~.
- 1 12. (currently amended) Apparatus ~~(88)~~ comprising a demodulator ~~(82)~~, the  
2 demodulator being arranged to demodulate a first signal ~~(36)~~ with the aid of a  
3 second signal ~~(38)~~, the demodulator comprising:  
4 a first bandpass filter ~~(30)~~ arranged to recover the first signal ~~(36)~~  
5 from a received signal ~~(10)~~; and  
6 a second bandpass filter ~~(32)~~ arranged to recover the second signal  
7 ~~(38)~~ from the received signal ~~(10)~~;  
8 in which the passband of the second bandpass filter ~~(32)~~ is  
9 substantially narrower than the passband of the first bandpass filter ~~(30)~~.

- 1     13.     (currently amended) Method for demodulating a first signal with the aid of  
2     a second signal the method comprising the steps of:  
3                     using a first bandpass filter ~~(30)~~ for recovering the first signal ~~(36)~~  
4     from a received signal ~~(10)~~;  
5                     using a second bandpass filter ~~(32)~~ having a substantially narrower  
6     passband than the first bandpass filter ~~(30)~~, for recovering the second signal ~~(38)~~  
7     from the received signal ~~(10)~~.
- 1     14.     (new) Demodulator according to claim 1 further comprising a mixer  
2     connected to the first and second bandpass filters to mix the first signal and the  
3     second signal.